

# Stony Brook University and the Tanzanian Health Consortium: sustainable access to clean water

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# Stony Brook/THC Water Program

THEME: Sustainable access to clean water: developing model but scalable programs that can impact human health while conserving the natural environment

# Stony Brook/THC Water Program

## PROCESS

- Tanzanian government and community leaders set priorities and identify problems and potential solutions
- Apply Stony Brook academic and financial resources in partnership to meet Tanzanian goals
- Design and apply assessment tools to assess impact and potential for transfer and expansion

# Stony Brook/THC Water Program

- Prioritize water solutions that will reduce childhood mortality and morbidity
- Solutions must be appropriate to Tanzanian economic, cultural and environmental conditions
- Avoid solutions which cause short term benefits but long term degradation

# Stony Brook/THC Water Program

- New program: in response to invitation to join THC
- New partnerships both within Stony Brook and with external institutions and individuals

# Stony Brook/THC Water Program

- School of Marine & Atmospheric Sciences
- School of Medicine (Internal Medicine, Pediatrics, and Public Health)
- College of Arts & Sciences (Chemistry, Geosciences, Anthropology)
- International Academic Programs, Graduate School, Offices of Provost and Vice president for Research

# Problems

- Low rainfall & climate variability/change
- Minimal water harvesting
- Low reserves of groundwater with limited replenishment
- Biological contamination of surface and ground water
- Chemical contamination of surface and ground water
- Limited household distribution
- Prevalence of waterborne diseases

# Solutions

- Pipelines
- Preventive: vaccination, hygiene education, fencing of animals, covering wells, latrines
- clinics
- Water purification: filtering and disinfection



# Solutions: Stony Brook

- provide limited pipeline and bore holes at request of community
- provide some primary medical care and preventive hygiene measures at request of community
- Four areas of primary interest
  - Enhancing water harvesting
  - Determine the role of communal/domestic filtration
  - Determine most appropriate method of domestic and communal disinfection
  - Capacity building

# Solutions: questions

- Is the solution culturally and economically acceptance to the community?
- What are the barriers to wider adoption of the solution?
- Can we measure the impact of the solution on the community?
- Is the solution technically optimized for the target communities?
- Can we create a customized menu of solutions for a community?
- What aspects of the solution are exportable and scalable?

# Stony Brook/THC Water Program: Next steps

- Multidisciplinary symposium at Stony Brook in February 2008
- Consultation with Tanzanian government and community leaders to set priorities and select regions
- Seek agreement with partners on specific proposals
- Student exchanges/faculty collaboration
- Apply for funding